



## **NASA SBIR 2009 Phase I Solicitation**

### **S6.04 Data Management - Storage, Mining and Visualization**

**Lead Center: GSFC**

**Participating Center(s): JPL, LaRC**

This subtopic focuses on supporting science analysis through innovative approaches for managing and visualizing collections of science data which are extremely large, complicated, and highly distributed in a networked environment that encompasses large geographic areas. There are specific areas for which proposals are being sought:

- Collaborative visualization tools that enable data exploration, data sharing, and data manipulation among scientists worldwide that make use of innovative hardware and software technologies for data manipulation and display, including the use of large multi-touch input devices or 3 dimensional display devices.
- Social networking tools that enable secure high bandwidth scientific collaboration among scientists worldwide that promote the development of online communities for sharing thoughts and ideas and for arriving at consensus opinions and understanding.
- Tools for science data discovery, data mining, data search, and data subsetting in extremely large data sets in clustered processing and storage environments, cloud computing environments, or shared data and computation environments.
- Storage systems, file systems, and data management systems that promote the secure long term preservation of data in a distributed online storage environment, provide for recovery from system and user errors, and provide dynamically configurable high speed access to data shared over wide area high speed networks.

Research should be conducted to demonstrate technical feasibility during Phase 1 and show a path toward a Phase 2 hardware/software demonstration, and when possible, deliver a demonstration unit for functional and environmental testing at the completion of the Phase 2 contract.